

ABSTRACT OF THE DISCLOSURE

The present invention provides immunocontraceptive
5 vaccines comprising a genetically engineered plant that has been
modified to produce the sperm-specific protein lactate
dehydrogenase-C (LDH-C). When animals such as rodents eat this
plant, their immune systems produce antibodies that attack their
sperms. Not only would the males have less viable sperm, the
10 females would also have antibodies to sperm entering their
reproductive systems. Immunocontraception is an attractive
method for reducing the population size of animals with high
fecundity, and sterilizing animals using such immunocontraceptives
can reduce targeted animal populations to acceptable levels in an
15 efficient, cost-effective, humane and, importantly, a species-specific
manner.